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MAR 29 2010

CUSTOMER NO.: 24498

Serial No. 10/583,822

Office Action dated: 27/10/09

Response dated: 29/03/2010

PATENT
PD030129Listing and Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Claims 1 to 16 (cancelled)

17. (Currently Amended) A light emitting display including a multiplicity of elements arranged in rows and columns, wherein the each elements includes a light-emitting means which emits light when a current flows through the light-emitting means, a first current control means which is connected in series with the light-emitting means, and a first and a second switching means which are controlled by a respective first and second switching signal and which are arranged between a control signal line and a control electrode of the first current control means, wherein the control signal line is connected to one end of the series connection of the first and second switching means of a multiplicity of elements, wherein a control electrode of a second current control means is connected to the control signal line such that the multiplicity of the first current control means of a multiplicity of elements and the second current control means connected to the control signal line at least temporarily form a corresponding multiplicity of current mirror circuits connected in parallel when the respective first and second switching means of the multiplicity of elements are conducting, and wherein the first and the second switching means are opened or closed responsive to respective first and second logical switching signals, which first and second logical switching signals are connected to a multiplicity of elements in a line or a column, respectively.
18. (Previously Presented) The light emitting display of claim 17, wherein a drive signal cyclically rising from a predetermined starting value to an end value is switchably supplied to the second current control means via third switching

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means, wherein the control signal supplied to the control electrode of the first current control means is dependent on the drive signal.

19. (Cancelled)
20. (Previously Presented) The light emitting display of claim 17, wherein a signal holding means is connected to the control electrode of the first current control means wherein the control signal is maintained when the first and/or second switching means interrupts the connection of the control signal line and the control electrode of the first current control means.
21. (Cancelled)
22. (Cancelled)
23. (Currently Amended) A method ~~for of~~ operating a light emitting display including a multiplicity of elements arranged in rows and columns, wherein each the elements includes a light-emitting means which emits light when a current flows through the light-emitting means, a first current control means which is connected in series with the light-emitting means, and a first and a second switching means ~~which are controlled by a respective first and second switching signal and which are arranged between a control signal line and a control electrode of the first current control means, wherein the control signal line is connected to one end of the series connection of the first and second switching means of a multiplicity of elements, and wherein a control electrode of a second current control means is connected to the control signal line such that the first current control means of a multiplicity of elements and the second current control means connected to the control signal line form a corresponding multiplicity of current mirror circuits connected in parallel when the respective first and second switching means of the multiplicity of elements are conducting.~~

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and wherein the first and the second switching means are opened or closed responsive to a respective first and second logical switching signal, which first and second logical switching signals are connected to a multiplicity of elements in a line or a column, respectively, wherein the method includes the following steps:

- closing the first switching means of a first multiplicity of elements arranged in a line at the start of a driving cycle in response to the first logical switching signal that is connected to said first multiplicity of elements;
- closing the second switching means of a second multiplicity of elements arranged in a column before or after closing the first switching means in response to the second logical switching signal that is connected to said second multiplicity of elements, wherein the first and second multiplicity of elements have at least one element in common;
- applying a current to the second current control means, thereby generating a control signal that is, via the control signal line, applied to the control electrodes of the first current control means of those elements of said multiplicity of elements, the respective first and second switching means of which are closed via the control signal line, which control signal rises constantly from a predetermined starting value, and which control signal causes a corresponding current flow in the first current control means;
- opening the first or the second switching means in response to the first or the second logical switching signal, respectively, when the luminous flux emitted by the light-emitting means reaches a desired magnitude;
- opening the second or the first switching means in response to the second or the first logical switching signal, respectively, after the end of the driving cycle; and
- initiating a new cycle when the applied control signal reaches a predetermined final value.

24. (Previously Presented) The method of claim 23, wherein the method includes

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actuating a plurality of light-emitting elements in a column or in a line in parallel and actuating the columns or lines sequentially.

25. (Cancelled)
26. (Previously Presented) The method of claim 23, wherein an idle time is provided between two cycles.
27. (Currently Amended) A light emitting display including a multiplicity of elements arranged in rows and columns, wherein the each elements includes a light-emitting means which emits light when a current flows through the light-emitting means, a first current control means which is connected in series with the light-emitting means, and a first and a second switching means which are controlled by a respective first and second switching signal and which are arranged between a control signal line and in the feed to a control electrode of the first current control means, wherein a the control signal line is connected to one end of the series connection of the first and second switching means of a multiplicity of elements, wherein a controllable voltage source provides a control signal cyclically rising from a predetermined starting value to an end value that, the control signal being is applied to the control signal line such that the control electrodes of the multiplicity of the first current control means are at least temporarily connected in parallel when the respective first and second switching means are conducting, wherein the first and the second switching means are opened or closed responsive to respective first and second logical switching signals, which first and second logical switching signals are connected to a multiplicity of elements in a line or a column, respectively.
28. (Previously Presented) The light emitting display of claim 27, wherein a signal holding means is connected to the control electrode of the first current control means wherein the control signal is maintained when the first and/or second

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switching means interrupts the connection of the control signal line and the control electrode of the first current control means.

29. (Cancelled)
30. (New) The circuit of claim 17 or 27, wherein an analogue-to-digital converter is provided for sampling the magnitude of a control signal applied to the second current control means that is operatively connected to a multiplicity of first current control means of those elements the first and second switching means of which are closed, wherein the sampled instantaneous value is applied to a control circuit, and wherein the control circuit is adapted to generate the logical switching signals for the first and second switching means in response to the sampled instantaneous value.
31. (New) The circuit of claim 17 or 27, wherein light emitting means for individual colors have different sensitivity, wherein the control electrode of a single second current control means is connected to first current control means of elements producing different colors, wherein the first current control means of elements for different colors mirror the reference current applied to the second current control means in a weighted fashion for taking into account the different sensitivity of the light emitting means for the individual colors.
32. (New) The method of claim 23, further including:
 - sampling the magnitude of a control signal applied to the second current control means that is operatively connected to a multiplicity of first current control means of those elements the first and second switching means of which are closed;
 - applying the sampled instantaneous value to a control circuit, wherein the control circuit generates the logical switching signals for the first and second switching means in response to the sampled instantaneous value.